Commerce and Industry Association of New York. Committee on postal affairs





The Merchants' Association of New York SECRETARY





MOVIE 1940

REPORT ON

RAILWAY MAIL PAY

THE COMMITTEE ON POSTAL AFFAIRS OF THE COMMITTEE ON POSTAL AFFAIRS OF THE POSTAL AFFAIRS

By Transfer NOV 21 1916

The Merchants' Association of New York



REPORT ON

RAILWAY MAIL PAY

BY

THE COMMITTEE ON POSTAL AFFAIRS



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ACTION ON THE FOLLOWING REPORT

THE Board of Directors of The Merchants' Association of New York, at a meeting held October 21, 1915, received, and, by a unanimous vote approved the following "Report on Railway Mail-Pay," submitted by the Association's Committee on Postal Affairs; and adopted the following preambles and resolutions in relation thereto:

Whereas, It is of vital importance to every business interest and to the entire people that their means of transportation constantly be maintained at the highest practicable point of efficiency, which condition is impossible unless the railroads be assured of the revenues necessary for their proper support; and

Whereas, It is shown by the analyses of the Interstate Commerce Com-

- (a) That railroad revenues as a whole are insufficient and should be increased; and
- (b) That the deficiency is mainly due to insufficient passenger service earnings; and

Whereas, It is shown by the analyses of the Bourne Joint Congressional Committee that the earnings of the mail traffic branch of the passenger service are approximately 22½ per cent. below the average earnings of the passenger service, which the Interstate Commerce Commission finds deficient as a whole; and

Whereas, It is shown by the Report of the Association's Committee on Postal Affairs that the average rate of compensation paid by the Government to the railroads for mail carriage has been reduced approximately 50 per cent. since 1902, and now produces little or no profit and possibly entails a loss; and

Whereas, The railroads receive no payment

For increase in weight of mails during the four-year period following each quadrennial weighing;

- For apartment-car space in 4,000 cars used mainly for assorting mails in transit; and
- For so-called "side" and transfer service; the value of which uncompensated services is now approximately \$11,000,000 to \$12,000,000 per year; and
- Whereas, It is proposed to abolish the present method of payment by weight, and to substitute therefor payment by space exclusively, on a basis which will exact from the railroads great increase of service without corresponding increase in compensation; and
- Whereas, The space-rate proposed is equivalent in the case of fully loaded cars to a rate of 1¼ cents per ton-mile for freight carried for the Government on passenger trains, while the same high-class freight, if carried for private shippers on freight trains, throughout the country would pay from two to three times that rate per ton-mile; and
- Whereas, The space-plan proposed totally disregards the principle upon which the entire freight-rate structure is based, namely, "rates proportioned to value of service"; arbitrarily limits the revenues which may be derived from mail-carriage; makes the carriage of freight much cheaper on passenger trains than on freight trains; and dangerously attacks the existing freight revenues of the railroads; now, therefore, be it
- Resolved, By The Merchants' Association of New York; that the public welfare requires that the country's transportation facilities be maintained in constantly efficient condition, to effect which end the railroads must receive adequate payment for their services; and therefore that rates shown to be unduly low should be advanced to a fair basis; and
- Resolved, That in our opinion the compensation now paid the railroads for mail carriage is insufficient, and should be increased by payment for services at present uncompensated for; and that we therefore recommend
 - (a) Payment, for the present, for weight, on the basis of the existing law, but with provision for annual instead of quadrennial weighings;
 - (b) Payment for apartment-car space, pro rata, upon the basis of payment now in effect for full postal cars;
 - (c) Payment to the railroads for side and transfer services, or, as an alternative, that the railroads be relieved of the performance of those services; and

Resolved. That no new and untried plan for determining railway mail pay should be adopted unless or until approved by the Interstate Commerce Commission, after thorough investigation, with especial reference to the effect of such plan upon the railroads' existing freight revenues, and the equity of rates proposed for the carriage of postal matter upon passenger trains in comparison with the rates charged for 1st Class merchandise on freight trains; and we recommend that for not less than two years, all weighings and adjustments for determining railway mail pay be supervised by the Interstate Commerce Commission, which Commission shall obtain from the Post Office Department and the railroads reports covering all necessary information as to the service performed, and thereafter report to Congress, with recommendations as to further changes, if any, that should be made in the law; and we further recommend that pending such report and recommendations by the Interstate Commerce Commission the existing law be continued, but with the modifications indicated by the preceding resolution; and

Resolved, That the plan of space-payment for mail-carriage proposed by the Bourne and the Moon Bills is excessively discriminatory in favor of the United States Government, in that it makes, for mail-freight carried on passenger trains, a rate only about one-third to one-half the rate paid for high-grade freight carried on freight trains, which condition will promote the diversion to the mails of large quantities of high-grade merchandise, on all of which the railroads will suffer a loss of one-half to two-thirds of their present freight revenues; and, therefore, that The Merchants' Association of New York oppose any and all Bills for the re-adjustment of railway mail pay on the basis mainly of space, or substantially as proposed by the Bourne and the Moon Bills.

S. C. MEAD,
Secretary.

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RAILWAY MAIL PAY

REPORT OF COMMITTEE ON POSTAL AFFAIRS

New York, October 15, 1915.

To the Board of Directors,
The Merchants' Association of New York.

GENTLEMEN:

T is vitally important to the producing, manufacturing and distributing classes in particular, and to the entire people of the nation in general that their transportation facilities be constantly maintained upon a high plane of efficiency. A contrary condition would inflict great harm and serious loss upon the entire community.

Continued efficiency of existing railroads is impossible unless their revenues are sufficient to meet the costs of operation, provide for maintenance and betterment, and supply a fair profit upon the capital employed. Unless these conditions are met, additional railroads for future needs cannot be constructed, as otherwise capital cannot be secured for such construction.

During recent years the net earnings of the country's railroads have been constantly declining, until they no longer suffice to provide for the proper demands upon them.

If efficiency is to be maintained, the decline in railroad net earnings must not only be arrested, but those earnings must be restored to a higher level. This can be done only by increasing the rates charged wherever they are shown to be unduly low.

Having in view the conditions outlined above, your Committee has made a protracted and very thorough study of measures now pending before Congress intended completely to change the basis of railway mail pay; in order to learn

- (a) Whether the railroads are now underpaid or overpaid for mail carriage;
- (b) Whether or not the proposed new plan will give to the railroads adequate compensation for the service rendered by them;
- (c) What effect, if any, the proposed new plan will have upon freight rates and freight revenues.

In making this study we have had the assistance of Mr. F. B. De Berard, the Association's Director of Research, who was continuously engaged during many weeks in examination and analysis of the immense body of material relating to the subject. His report is appended hereto and frequently cited.

FOR A GIVEN COMPENSATION THE RAILROADS ARE GIVING TWICE THE SERVICE GIVEN IN 1902.

R AILWAY mail pay is regulated by a graduated scale of rates, prescribed by the law of 1873.

Under this scale the rate of pay decreases as the weight of mail carried by an individual railroad increases. As the volume of mail over nearly all lines constantly increases, the rate of pay correspondingly decreases.

In addition to the decrease in rate due to this cause, Congress has made several percentage reductions; and the Post Office Department, by changing the divisor used in ascertaining the average daily weight, greatly reduced the latter, which was equivalent to a reduction of about 14 per cent. in rates.

By reason of these causes, the service rendered by the railroads in the carriage of mails has increased in a much greater ratio than has the compensation paid for such carriage.

Mr. De Berard estimates that for a given sum the railroads are now carrying at least twice the weight carried in 1902 for an equal sum. The data upon which he bases this estimate are exhibited in the Appendix, pages 24-26. He also examines in detail (Appendix, pp. 44 et seq.) the principle upon which the graduated scale is based, and shows the fallacy of applying it to mail carriage.

The great decrease in rate does not, however, by itself demonstrate that the traffic is unprofitable, but it indicates a probable great reduction in the margin of profit, for the reason that the operating economies which alone warrant a reduction of rate as quantity increases are not practicable under the conditions exacted for mail carriage. We show below that by reason of the rate reductions indicated, and other causes discussed in the following pages, the margin of profit on mail carriage has almost, or quite, disappeared.

RAILROAD NET EARNINGS, AS A WHOLE, INSUFFICIENT.

T is shown by the records and analysis of the Interstate Commerce Commission (Appendix, pp. 26-30) that the ratio of railroad net earnings to property investment has steadily decreased during recent years, having declined from 6.31 per cent. in 1906 to 5.36 per cent. in 1913. During the same period the ratio of traffic and gross income, relative to property investment nearly doubled. Thus, while the use of a given amount of capital carries nearly twice as much traffic, and produces nearly twice as much gross revenue, as in 1906, its net earnings are actually about 15 per cent. less.

In 1902 operating expenses consumed 64.62 per cent. of gross earnings; in 1913 operating expenses consumed 71.77 per cent. of gross earnings.

The Interstate Commerce Commission made a very thorough analysis of railroad revenues in considering the application of 35 railroads for permission to advance freight rates 5 per cent.

In its decision the Commission said (Appendix, p. 28):

"In view of a tendency toward a diminishing net operating income as shown by the facts described, we are of the opinion that the net operating income of the railroads in Official Classification Territory, taken as a whole, is smaller than is demanded in the interest of both the general public and the railroads * * *. Their net income is insufficient and should be increased."

DEFICIENCY IN REVENUES MAINLY DUE TO PASSENGER SERVICE.

B UT while the Commission found that certain freight rates were too low, it refused the general advance asked, on the ground that the deficiency of revenue was mainly due to insufficient earnings by the passenger service (Appendix, p. 29).

It is thus officially certified by the Interstate Commerce

Commission

- (a) That the aggregate net income of the railroads "is insufficient and should be increased."
- (b) That the revenues derived from the passenger service are relatively more deficient than those derived from the freight service.

It follows, therefore, that some or all of the branches of the passenger service are operated either at a loss or with unduly low profit.

The passenger service comprises all the traffic carried by passenger trains. Its branches are:

Passenger Traffic, Express Traffic, Mail Traffic.

The Bourne Joint Congressional Committee, created in 1912, spent two years in an exhaustive study of the subject of mail pay and in connection therewith developed the following facts (See Appendix, pp. 33-39):

The average earnings per car-mile of the three branches of the passenger service, about the fiscal year 1909-1910, were:

Passenger Traffic,	per	car-mile	 	26.04	cts.
Express Traffic,	66	66,	 	22.647	66
Mail Traffic,	66		 	20.22	66

The mail-traffic earnings were thus shown to be, at that time, $22\frac{1}{2}$ per cent. deficient as compared with passenger-traffic earnings; and slightly over 20 per cent. deficient as compared with the average earnings, during a period of five years, of the entire passenger service, which average earnings the Interstate Commerce Commission found were below their proper level.

CAUSES OF DEFICIENCY IN REVENUES FROM MAIL TRAFFIC.

Apartment-car Space: (Appendix, p. 40) The railroads provide for the use of the Post Office Department about 4,000 so-called "apartment" cars. These are cars of special construction, within which designated space is partitioned off, and used solely for postal purposes. The weight and cost of these cars much exceed that of ordinary baggage cars. Only from 10 to 20 per cent. of the space is required for the actual carriage of the mails. The remainder is used for assorting mails in transit. The railroads are paid for the weight carried in these cars, but are paid nothing for the extra space used for assorting, except in the case of a few apartments which exceed 40 feet in length. For this apartment-car space, if paid at the rate allowed by the Government for full postal cars, the railroads should receive approximately \$4,000,000 per year.

They now receive nothing for it.

Side and Transfer Service: (Appendix, p. 41) The railroads are now required to carry the mails to and fro, between their stations and certain classes of post-offices. They are also required to transfer them to stations upon the line of other railroads. For this service they receive no payment. The Post Office Department estimated the cost of this service in 1915 (if performed by contract carriers) as about \$2,200,000.

Quadrennial Weighings: (Appendix, p. 41) The mails over any particular route are weighed but once in four years, and no allowance for increase in weight during that period is made. Any increase is therefore carried without compensation to the railroads. Mr. Lorenz, Associate Statistician of the Interstate Commerce Commission, estimated that immediately preceding 1913, the annual under-payment to the railroads from this cause was approximately \$3,225,000. Following the parcels post changes the rate of annual increase in weight more than doubled, and it is estimated that the present annual under-payment due to quadrennial weighings is about \$7,400,000. Against this Congress has made a temporary allowance of \$1,686,000, leaving the net under-payment about \$5,700,000.

The proper mail-carriage revenues are therefore at present annually depleted:

By Non-Payment for Apartment Cars	\$4,000,000
By Non-Payment for Side Service	2,000,000
By Quadrennial Weighing\$7,400,000	
Less Temporary Allowance 1,700,000	5,700,000
·	
Total Estimated Under-Payment	\$1.1.700.000

The temporary allowance noted will cease in 1916, and the full loss (as stated above) due to quadrennial weighings will again become operative, and will annually increase thereafter.

It is contended by the Post Office Department that although the railroads receive no direct payment for these items, they are in fact fully compensated for them by the payments based upon the pound-rates. It has been shown above that the revenues derived from the pound-rate are more than 20 per cent. below the general level of passenger service earnings; that that general level is lower than it should be, and therefore that to enable the mail service to contribute its proper pro rata to the general earnings (the standard set by the Interstate Commerce Commission) the pound-rate revenues of that service would require to be increased at least 25 per cent. As the mail service does not earn a profit, it is obvious that a profit which does not exist cannot indirectly compensate for services for which no direct payment is made.

PROPOSED RE-ADJUSTMENT OF RAILWAY MAIL PAY.

THE Bourne Committee found the mail earnings of the railroads insufficient and that they should be so increased as to produce at least 25 cents per car-mile—slightly less than the average car-mile earnings of the entire passenger service, which the Interstate Commerce Commission has since found too low. (Appendix, p. 47 et seq.)

They propose that weight-payments be entirely abolished, and payments for space solely be substituted. They prepared a schedule of space-units and a scale of terminal and mileage rates, intended to produce a revenue of 25 cents per car-mile, thereby ostensibly giving the railroads an increase of 23.64 per cent. over the former car-mile rate of 20.22 cents.

The Post Office Department was hostile to the Bourne Committee's purpose of increasing the compensation paid the railroads, and was expressly and strongly committed to a policy of reduction. For that purpose it had proposed several successive plans. When the Bourne space-plan was developed, the Department abandoned its former plans, and adopted the essentials of the Bourne space-plan, for the reason that, contrary to the intent of its authors, it provided an effective means for *reducing*, instead of *increasing*, railway mail pay. Ignoring the Bill which the Bourne Committee was preparing, the Department caused to be introduced in Congress the interfering Moon Bill, concerning whose effect its sponsor said while addressing the House:

"* * You will have enough space under the contract to carry all your parcels post, probably without any additional compensation, and save many millions of dollars annually."

EFFECT OF SPACE-PLAN UPON MAIL PAYMENTS.

ONCERNING the effect of the space-plan upon railroad revenues, we quote as follows from Mr. De Berard's report (Appendix, pp. 51 et seq.):

"The essence of the space-plan is that it requires large increase in service, without permitting corresponding increase in compensation.

"It derives a rate per car-mile from cars carrying light loads paid for by the pound, and then applies that rate, based upon light loads, to cars carrying heavy loads. Thus, as it pays on the basis of cars, and not on the basis of contents, and pays by the car at a rate derived from light weights, any increase in contents,

within the limit of car capacity is carried without compensation.

"The space-plan schedule measures the vehicle instead of measuring the service. The extent of the service may greatly increase without any increase in the vehicle. The charge for the vehicle being fixed, no increase in compensation results from an increase in service performed by means of the vehicle. Such increase in service is therefore performed for nothing.

"The average load carried by a mail storage-car is reported by the Post Office Department as a little over 7 tons (Hearings, Bourne Com., p. 875). The capacity of storage cars is 20 to 25 tons. The space rates proposed by both the Bourne and the Moon Bills are derived from and based upon the revenues hitherto produced by the average 7-ton load, carried in a 20-ton car and paid for by weight. Under the space-plan of payment the average storage-car load can be increased nearly three-fold, without any increase in compensation."

Mr. De Berard then shows (Appendix, p. 53) that whereas the weight of mails transported has increased since 1910 by more than 25 per cent., the increase in compensation to the railroads during that period, under the space-plan, would have been less than 6 per cent.

At its very inception the space-plan would *reduce* the proper present revenues of the railroads by about 6 per cent. The process of reduction would continue indefinitely into the future under the operation of concentration of loading.

EFFECT OF SPACE-PLAN OF MAIL PAYMENTS UPON FREIGHT TRAFFIC AND REVENUES.

THE Bourne schedule is constructed to produce a car-mile rate of 25 cents per mile. In the case of a fully-loaded storage-car of 20 tons capacity that is equivalent to 1½ cents per ton-mile. The average 1st Class freight rate to numerous typical points throughout the United States produces an average ton-mile rate of 2.948 cents. Shipments of less than 100 lbs. pay the full 100-lb. charge; and would therefore pay on the average in excess of 4 cents per ton-mile.

For the carriage of commodities by parcels post, therefore, the Government under the space-plan would pay less than 1/3 the rate which the same commodities would pay if transported upon freight trains.

This rate is excessively discriminatory in favor of the Government. It is not only exceedingly unjust in itself, but it creates the possibility, and indeed, the likelihood, of very serious losses in the railroads' freight revenues. The Postmaster General advocates, and is seeking to promote, the general carriage of commodities by post, a result that can be reached by increasing the weight limit to 100 lbs. and reducing rates. Under the car-mile rate proposed, the Department could without loss carry by mail parcels of 100 lbs. or less at the rate of 11/4 cents per ton-mile. Any postal rate less than the 1st Class freight rate would convert an enormous volume of high-rate freight traffic into postal traffic, and the railroads would lose 2/3 of their present revenues from such converted traffic. A further and collateral result would be very serious interference with passenger train service, and material increase in the cost of operation.

This phase of the question is discussed more in detail in the Appendix, pages 54 et seq. and pages 58 et seq.

We can conceive of no sound reasons why the United States Government should pay for the superior service of passenger trains a rate greatly lower than ordinary shippers pay for the inferior service of freight trains. Nor do we believe it possible to justify a rate which will enable the Post Office to transport for the public merchandise at ½ or 1/3 the rates now received by the railroads for transporting such merchandise. We believe it intolerably unjust that the Post Office, by means of excessively discriminatory rates granted to it by law, should be enabled successfully to compete with the railroads for their most profitable freight traffic, to deprive them of a large part of it, and thereby enormously to deplete their present freight revenues.

Such will be the potential effect of the space-plan of payment for mail-carriage and we therefore most emphatically condemn it.

We further contend that the rates charged for the carriage of commodities on passenger trains (with the great attendant advantage of speed) should not be determined either with relation to the actual cost of supplying the service, or the average car-mile earnings of the passenger service (as is proposed under the space-plan), but with relation to the value of the service—the principle upon which the whole freight rate structure rests, and whose justice is universally conceded. Carriage by speedy passenger trains is surely a more valuable service than is carriage by slow freight trains, and the charge for passenger train carriage should therefore be materially higher.

We therefore believe that mail pay should be so adjusted as under all circumstances to yield a revenue very materially greater than that produced by 1st Class freight rates.

CONCLUSIONS

- 1: THE railroads are now underpaid for mail-carriage to the extent of approximately \$11,000,000 or \$12,000,000 per year, principally by reason of non-payment for apartment-car space and side service and, as a result of quadrennial weighings, the carriage every year of a large volume of mail without compensation.
 - 2: We unreservedly condemn the space-plan of payment:
 - (a) Because it exacts from the railroads great increase of service without corresponding increase of compensation;
 - (b) Because it totally disregards the principle upon which the entire freight-rate structure is based, namely, "rates proportioned to value-of-service;" arbitrarily limits the revenues which may be derived from mail-carriage; makes the carriage of freight much cheaper on passenger trains than on freight trains; and dangerously attacks the existing freight revenues of the railroads.
- 3: In no event should mail (and particularly merchandise included in mail matter) be carried on passenger trains at rates as low as, or lower than those paid by 1st Class freight carried on freight trains and in general accepted by the Interstate Commerce Commission as fair; to compensate for the superior service afforded by passenger trains, mail-freight carried thereon should pay a rate materially higher than freight rates; and under no circumstances should the rates for mail-carriage be made so low as to permit the Post Office to make for merchandise, rates which will attack the railroads' freight revenues.

- 4: Adjustment of railway mail pay should be continued on a weight basis under the present law, so modified as to provide for:
 - (a) Annual weighings,
 - (b) Payment for apartment cars,
 - (c) Payment for side and transfer service.
- 5: All weighings and adjustments should be supervised by the Interstate Commerce Commission for not less than two years. The Interstate Commerce Commission should further obtain from the Post Office Department and the railroads reports covering all necessary information as to the service performed, and thereafter report thereon to Congress, with recommendations as to further changes, if any, that should be made in the law.

RECOMMENDATIONS.

We recommend:

I.—That The Merchants' Association of New York oppose any and all Bills for the re-adjustment of railway mail-pay on the basis mainly of space or substantially as proposed by the Bourne and the Moon Bills.

II.—That the Association advocate:

- (a) Payment for the present, for weight, on the basis of the existing law, but with provision for annual instead of quadrennial weighings;
- (b) Payment for apartment-car space, pro rata, upon the basis of payment now in effect for full postal cars;

- (c) Payment to the railroads for side and transfer services, or, as an alternative, that the railroads be relieved the performance of those services;
- (d) That for not less than two years, all weighings and adjustments for determining railway mail-pay be supervised by the Interstate Commerce Commission, which Commission shall obtain from the Post Office Department and the railroads reports covering all necessary information as to the service performed, and thereafter report to Congress, with recommendations as to further changes, if any, that should be made in the law.

Respectfully submitted,

COMMITTEE ON POSTAL AFFAIRS, THE MERCHANTS' ASS'N. OF N. Y.

WM. FELLOWES MORGAN, Chairman, WILLIAM R. WILLCOX, CHARLES EDDY, FRANK DEK. HUYLER, ROBERT E. NUESE, PHILIP L. SCHELL, J. LOUIS SCHAEFER.

[APPENDIX]

RAILWAY MAIL PAY

REPORT OF DIRECTOR OF RESEARCH

New York, October 1, 1915.

Mr. William Fellowes Morgan, Chairman, Committee on Postal Affairs, The Merchants' Association of New York.

N accordance with your request I have made an analysis of the railway mail pay question, with especial reference to whether the compensation paid the railroads for transporting the mails is or is not excessive; and submit the following report thereon:

I:-INTRODUCTORY.

RAILWAY mail pay has been the subject of continuous and acrid controversy during many years. The Post Office Department has persistently contended that the railroads have been excessively overpaid, and has at frequent intervals caused to be introduced in Congress successive bills to readjust rates, with the avowed purpose of greatly reducing the amount of payments to the railroads.

The subject is extremely complex, comprising a wide range

of intricate and variable factors, and the accounting and cost data indispensable to a sound determination have never been fully collated; so that until recently it has been impossible to ascertain, with any reasonable degree of certitude, whether the compensation paid the railroads is or is not excessive. Successive Committees of Congress have investigated the subject, until recently without any convincing result, owing to the defective data. In 1912 a Joint Committee, with Senator Bourne as Chairman, was created by Congress, "to make inquiry into the subject of postage on second-class mail matter and compensation for the transportation of mail."

This Committee heard a vast array of evidence and had at its command a considerable body of fundamental data not previously available, derived in part from cost accounts supplied by the railroads, in part from the records and special studies of the Interstate Commerce Commission, and in part from the records of the Post Office Department. The Committee, however, very severely criticised the inadequacy and unreliability of much of the Departmental statistics.

In its analysis of the data developed by it, the Committee had the unofficial co-operation of the Interstate Commerce Commission, through its Associate Statistician, Mr. M. O. Lorenz, assigned for that purpose.

The Report of the Bourne Committee, dated August 1, 1914, presents a large array of indispensable, reliable, and, to a considerable degree, conclusive data; and, in addition, exposes many of the statistical fallacies contained in the Department's Report (entitled Doc. 105, Sixty-second Congress, 1st Session), upon which the Department bases its contention for a reduction of the rate of mail pay.

The Bourne Committee finds the present rate inadequate, recommends an immediate substantial tentative advance subject to later final adjustment, and proposes the substitution of space, instead of weight, as the basis of compensation.

Despite the existence of the Bourne Committee, and its protracted and searching inquiry, and prior to its report, the Post Office Department prepared, and caused to be introduced in Congress the so-called Moon Bill, so framed as to effect a large reduction in railway mail pay.

The first part of the following report examines into the sufficiency or insufficiency of the present compensation to the railroads. It concludes with a summary of the essentials of the Bourne Committee Bill and the Moon Bill, and a statement of some of the objections to the space basis of payment, advocated by the Bourne Bill, and in its final form, by the Moon Bill.

II:—FAIRNESS OR UNFAIRNESS OF PRESENT COM-PENSATION.

THE present basis of payment for carriage of mails by rail, established by law in 1873 (with subsequent modifications as to rate), is comprised of two factors; namely, weight and space.

Payment by weight is made for the actual carriage of the mails; additional payment by space is made for full postal cars, used for sorting and distributing mails *en route*.

The weight paid for is not the actual weight transported, but a computed weight, derived, in the case of each railway route, by actually weighing, during a period of ninety working days, all mails passing over such route. From the weights so obtained is derived a daily average of the weight carried a distance equal to the entire length of the line. Upon the basis of such daily average, payment is made to the railroad for the ensuing four years. Under this method the railroad carries, without increase of compensation, any increase in weight which may accrue during such four-year period.

The rates paid for weight-carriage are graduated, decreasing as the weight increases. As the volume and weight of the mails constantly increase, the effect of the graduated rates therefore is gradually to change mail carriage from high-rate to low-rate traffic, and to reduce the compensation accordingly.

In addition to reductions in compensation due to this cause, direct reductions in rates for weight have been made by law since 1873, as follows:

Act of July 12, 1876......10 per cent. reduction, all rates.

Act of June 17, 1878..... 5 per cent. reduction on all rates.

Act of March 2, 1907...... 5 per cent. on daily average of over 5,000 lbs.

of over 48,000 lbs.

In 1907, Postmaster-General Meyer issued the so-called "divisor order," which changed the method of computing the average daily weight, and reduced the pay of the railroads about \$5,000,000 per year.

The factors indicated have operated greatly to reduce the compensation of the railroads relatively to the extent of the service performed by them. The extent of this reduction is indicated by a comparison during a series of years of the revenues received by the Government for mail service, with the amounts paid the railroads for mail carriage. The following table shows for each year of the period from 1902 to 1914, inclusive, the revenues of the Post Office from the carriage of mail matter (omitting revenues from money orders, box rents and miscellaneous sources), and the percentage of increase of each year over the similar revenues for 1902. It

further shows the payments to the railroads for each year, and the percentage of increase over 1902. The last column shows for each year the ratio between the revenues received by the Post Office and the payments made to the railroads.

PROPORTION OF POSTAL REVENUES PAID RAILROADS FOR TRANSPORTATION, SHOWING INCREASE IN VOLUME OF SERVICE AND DECREASE IN RATE OF COMPENSATION.

(Fiscal Year, Ending June 30.)

					Per Cent.
		70 1	70 1 1	D D 1	of An-
	Revenues fro		ge Payments t		nual Reve-
		Increase		Increase	nues from
		over		over	Postage
		1902		1902	Required
•		Per	A	Per	to pay for
	Amount	Cent.	Amount	Cent.	R. R. Trans.
1902	\$116,728,644		\$39,953,607		34.22
1903	129,606,929	11.03	41,886,848	4.84	32.31
1904	137,640,330	17.91	44,695,610	11.86	32.47
1905	146,654,216	25.63	45,576,515	14.07	31.07
1906	160,633,584	37.61	47,481,037	18.84	29.55
1907	175,607,908	50.44	51,008,111	27.66	29.04
1908	183,359,162	57.08	49,404,763	23.65	26.94
1909	195,633,615	67.59	49,606,440	24.16	25.35
1910	214,655,598	83.89	49,302,217	23.39	22.96
1911	227,649,366	95.02	50,910,261	27.42	22.36
1912	236,407,374	102.52	50,703,323	26.90	21.45
1913	255,769,147	119.11	51,466,030	28.81	20.12
1914	275,390,497	135.92	55,480,560	38.86	20.14

Compiled from the Annual Reports of the Post Office Department,

The foregoing table shows that revenues derived by the Post Office from the mails increased in the period between 1902 and 1914 in much greater proportion than the payments to the railroads for carriage increased, so that the railroads, for an equal amount of money, were rendering a correspondingly greater service in 1914 than in 1902.

Thus in 1902 for each \$100 paid the railroads for transportation, the Post Office received \$292.22 in revenue; while in 1914 for each \$100 so paid, it received a revenue of \$490.50, equal to an increase in revenues, from each \$100 of outlay, of 67.8 per cent.

It is obvious that the volume and weight of the mails must increase as the revenue increases, but not necessarily in the same ratio. Any reduction of rates would increase the ratio of weight to revenue; and a material increase in the proportion of 2nd, 3rd and 4th class matter (the weight of which in proportion to revenue is from 4 to 32 times or more that of 1st class matter) would cause a very marked increase in the weight and volume of mails in proportion to revenue.

The Post Office revenue reports indicate a moderate but constant increase in the proportion of revenue from 2nd class matter (most of which pays but 1/32 the rate of 1st class matter), the weight of which was in 1908 estimated by the Post Office Department as 63.91 per cent. of the entire mails. It is evident, therefore, that the slight increase in the ratio of revenue derived from 2nd class matter indicates a material increase in the ratio of aggregate weight to aggregate revenue. There appears likewise to have been for several years preceding the parcels post enlargement in 1913, a steady and large increase in the proportion of 3rd and 4th class matter, which would likewise increase the ratio of weight to revenue. Finally, the radical changes in the parcels post classification, the great expansion of the weight limit, and the immense increase in the volume of merchandise transported thereunder must inevitably have greatly increased the ratio of weight to revenue.

No data exist from which the actual increase in weights can be determined, but it is clear that during ten years past the proportion of low rate mail transported by the Post Office has steadily and largely increased, that those classes of mail matter cause a relatively large increase in weight and a relatively small increase in revenue, and that the weight of the mails in proportion to the revenue is in 1914 much greater than in 1902.

While, therefore, the foregoing analysis of the relative revenues of the Post Office and payments to the railroads in 1902 and 1914 indicate an increase of 67.8 per cent. in the service rendered by the railroads for a given sum, it is safe to say (having in view the increased ratio of weight to revenue), that the railroads are now carrying for a given sum, at least twice the weight carried in 1902 for an equal sum.

This very marked increase in the extent of service rendered by the railroads for a given compensation does not, however, necessarily indicate that they are underpaid.

The true significance of the foregoing demonstration becomes evident only in connection with an analysis of the aggregate of railroad operating revenues, operating costs, other charges which must be met, the margin of profit remaining, and the relation of the mail service to the general earning power and its results. This analysis follows:

STEADY DECREASE IN RATIO OF NET EARNINGS.

The Interstate Commerce Commission in the recent case arising from the application of 35 railroads for permission to advance their freight rates 5 per cent., made a prolonged and very thorough investigation as to whether or not the net income of the railroads was sufficient to meet the proper and necessary demands upon it (based upon the property investment).

The Commission found that the ratio of net operating income to property investment had almost constantly decreased since 1906, the tendency being steadily downward. This downward tendency is shown by the following figures, from the Commission's decision in the Five Per Cent. Case:

			Ratio	
			of Net Operat-	
		Net	ing Income	
	Property	Operating	to Property	
	Investment	Income	Investment	
1906	\$4,818,000,000	\$304,000,000	6.31 per cent.	
1907	5,092,000,000	318,000,000	6.25 " "	
1908	5,259,000,000	277,000,000	5.26 " "	
1909	5,344,000,000	297,000,000	5.55 " "	
1910	5,621,000,000	353,000,000	6.28 " "	
1911	5,950,000,000	311,000,000	5.23 " "	
1912	6,098,000,000	316,000,000	5.19 " "	
1913	6,281,000,000	337,000,000	5.36 " "	

During the same period, while the ratio of net income was decreasing, the ratio of traffic and gross income, relative to property investment nearly doubled Thus while the volume of traffic and the gross earnings were constantly increasing, without a proportionate increase in the capital employed, the net profits were actually decreasing.

This condition could result from but two causes:

- (a) Depletion of revenue by undue reduction of rates.
- (b) Absorption of revenue by increased operating costs.

The result in either case would be the same—an insufficient margin of profit above operating costs.

During a considerable series of years the ratio of operating costs to gross earnings has almost constantly increased. This upward trend of costs is shown by the Reports of the Interstate Commerce Commission, as follows:

RATIO OF OPERATING EXPENSES TO GROSS OPERATING EARNINGS.

(Taxes not included.)

1900	64.62	per	cent.
1901	64.82	66	66
1902	65.49	66	66 .
1903	67.15	66	66
1904	68.87	66	66
1905	67.88	66	66
1906	66.83	66	66
1907	68.45	66	66
1908	70.97	66	66
1909	67.97	66	66
	67.27	66	66
1910	70.71	66	66
1911		66	66
1912	70.75	66	66
1913	71.77	••	

The Commission in its decision said:

"In view of a tendency toward a diminishing net operating income as shown by the facts described, we are of the opinion that the net operating income of the railroads in official classification territory, taken as a whole, is smaller than is demanded in the interest of both the general public and the railroads * * *. Treating as one railroad the 35 railway systems that have joined in this application for our approval of a so-called 5 per cent. advance in their freight charges, we have reached the conclusion that their net operating income is insufficient and should be increased."

The Commission, therefore, held in effect that the rail-

roads were not receiving, in the aggregate, fair compensation for their services—a condition that manifestly could arise only because of unduly low rates. But while the Commission granted an advance in freight rates, it did not allow an increase sufficient to supply all the added revenue conceded to be reasonably required to restore the net income of the railroads to a proper and normal basis. On the contrary, the Commission held in effect that each branch of the railroad service should be self-sustaining and provide its due pro rata of net income. It found that the decrease in net income was probably due in a larger degree to the passenger service than to the freight service—that is to say, that the earnings of the passenger service, and by consequence, the rates charged for that service, were not only too low, but were relatively more deficient than the earnings and rates of the freight service.

DEFICIENCY OF INCOME MAINLY DUE TO PASSENGER SERVICE.

On this point the Commission, in its decision, said:

* * * "It is consistent with the evidence of record as to some of these carriers that the increase shown in the ratio of operating expenses to operating revenues is attributable wholly to increased cost of passenger service; and it is probable in the case of every railroad showing a largely increased operating ratio, that the increased ratio is due, in large measure, to its passenger service.

* * * "The freight operating expenses (of the New Haven R. R. for 8 months ending Feb. 28, 1914), consumed only 44.5 per cent. of the freight train revenue, while the expenses in connection with its passenger service consumed approximately 100 per cent. of the passenger train revenue. The relative results of the freight train and passenger train business on the New

Haven are not exceptional * * *. It is significant that with a single exception, every railroad in official classification territory that has undertaken to separate the freight and the passenger expenses shows that in 1913 the passenger service was relatively much less profitable than its freight service.

"The conclusion that the increase in general operating ratios is largely attributable to the increase in passenger operating expenses, taken in connection with reductions in passenger fares is confirmed by exhibits showing a great increase in freight-train loading, which must have counterbalanced in large part the increase in the rate of wages and of other expenses incident to freight traffic."

It is thus officially certified by the Interstate Commerce Commission

- (a) That the aggregate net income of the railroads "is insufficient and should be increased."
- (b) That the revenues derived from the passenger service are relatively more deficient than those derived from the freight service.

Among the cost-factors which in recent years have tended to make the cost-ratio of the passenger service, relatively to revenue, materially greater than that of the freight service. and thereby to make the passenger service relatively, and perhaps absolutely unprofitable are:

The enormously expensive terminal and through passenger stations, now indispensable in all important cities. These do not increase revenue, but impose a very heavy burden of carrying and maintenance costs. which are properly chargeable against passenger service, and materially affect its net earnings.

Increasingly expensive equipment, such as steel cars, required by law in the interest of safety. The cost per unit of given capacity is greatly in excess of that of former car equipment. The weight per unit is also much greater, with corresponding increase in cost of train operation.

Increased outlays on roadway, both for construction and maintenance, to provide the stability required for high speed—indispensable to passenger service, but not required or useful for freight service.

Speed demands, which greatly increase the cost of train operation.

Frequency of passenger train service, resulting in small average loads, small average revenue per car-mile, and high average cost of train-operation.

Thus the public demands for speed, safety, frequency and convenience greatly increase financial burdens and operating costs; and the charges, of all kinds arising therefrom are properly chargeable against the passenger service.

It having been shown in the opinion of the Interstate Commerce Commission, that the passenger revenues are not only deficient, but that the general deficiency is probably mainly attributable to the passenger service, it follows that some or all of the branches of the passenger service are operated either at a loss or with unduly small profit.

The factor, or factors, of loss may be located;

(a) either by ascertaining the specific cost of each branch of the passenger service and the ratio of such cost to the revenue therefrom; or

(b) approximately, by ascertaining whether or not the revenue derived from each branch of the passenger service corresponds to the proportionate use made by it of passenger trains.

The first method (a) is not practicable, for the reason that the regular reports made by all railroads to the Interstate Commerce Commission do not segregate costs sufficiently to afford the required data (although an imperfect segregation was made by the Department in 1909, as detailed below). It is, therefore, necessary to resort to method (b) based upon relative extent of use and relative revenues resulting from such use.

The universally accepted unit of use in passenger train service is the car-mile. The annual reports of the railroads to the Interstate Commerce Commission supply the aggregate passenger-train car-miles and the aggregate passenger-train revenues. The revenue per car-mile is obtained by dividing the passenger-train revenues by the passenger-train car-miles.

The following table, derived from data contained in the Reports of the Interstate Commerce Commission, shows the passenger car-mile earnings during each of five years, and the five-year average:

1908	. (cents	per	car	-mile	25.52
1909		66	66	66	25.13
1910		66	66	66	25.49
1911	. "		66		25.50
1912		66	-66	. 66	24.92
Five-year average 1908				66	25.31

The passenger-train service comprises all traffic transported by passenger trains. Its branches (omitting the milk traffic, which is negligible) are: Passenger Carriage, Express Carriage, and Mail Carriage.

TEST ON BASIS OF RELATIVE REVENUE—AND—USE.

In 1909, the Post Office Department, with a view to developing the car-mileage of the mail service and the mail earnings and cost per car-mile, required from all railroads detailed reports of specified data, as derived from actual operation during the month of November. The reports made by the railroads of car-space used for mail purposes included so-called "dead" space—that is space not at all times actually occupied by the mails, but incidental to and inseparable from their carriage. With this "dead" space included, after reducing all the space so reported to units of 60-foot cars, the aggregate car-mileage was computed. Dividing this into the aggregate payments, mail car-mile earnings of 20.22 cents per mile were shown. A similar process applied to passenger-car mileage showed passenger car-mile earnings of 26.04 cents per mile.

The Post Office Department, however, contended that "dead" space in mail cars should not be charged against the mail service. The effect of thus excluding the dead space was materially to change the ratios of mail-car to passenger-car earnings per mile. On the Department's basis the mail-mileage would be reduced and the earnings per car-mile increased to 24.84 cents, while the passenger earnings per car-mile would be reduced to 24.96 cents.

The Bourne Committee went very thoroughly into the question as to whether or not in computing mail-mileage dead space should be included. Mr. Lorenz, Associate Statistician of the Interstate Commerce Commission, testifying before the Bourne Committee (Hearings, p. 514), said:

"I cannot see how there can be two opinions. It seems to me just as you cannot operate a freight service without hauling empty freight cars, and just as you cannot operate passenger service without hauling empty space, you cannot operate mail service without hauling empty space, and in comparing the various departments either on cost or revenue basis, you should include all of the space, used and unused which is hauled in connection with that service; and I cannot understand, therefore, why on this particular point the Post Office Department should have rejected the dead space from the mails and put it in the passenger service. It seems to me that there they made a clear error."

The Bourne Committee, itself, in its Report (p. 69) under the heading "Erroneous Treatment of Mail Space," said:

"To our minds, the discussion of the subject proved conclusively that here also the Department made a serious error. Some of the so-called dead space may have been legitimately rejected, as when a particular train running six times a week was erroneously put down as running seven times a week. But to maintain that empty space unavoidably run in connection with the mail service is not to be considered as chargeable to the Department. when the empty seats in the passenger-car are all charged to the passenger service, must appeal to any fair-minded person of average intelligence as utterly unwarranted. It is undisputed that when 'dead space' is all charged to the mail service, the Government paid 20.22 cents per car-mile in November, 1909, while if it is not counted, it paid 24.84 cents per car-mile. If in the other passenger train services all the space is counted, which

is the only way it can be counted from the evidence submitted, it has been agreed by the representatives of both the Department and the railroads that the railroads received a car-mile rate of 26.04 cents in that month. It is indisputable that the 26.04 cents passenger-car-mile revenue must be compared with the 20.22 cents for mail, and not with the 24.84 cents for mail given above."

It appears, therefore, that in November, 1909, the mail service contributed to the general passenger earnings 5.82 cents per car-mile less than was contributed per car-mile by other cars in the passenger service. In other words, assuming a parity of cost per car-mile as between mail and passenger cars, the earnings of the former, as compared with passenger earnings, were deficient 22½ per cent.; and as compared with the five-year average of all passenger service earnings, slightly over 20 per cent.

It is the opinion of the Bourne Committee that mail carriage benefits by every expenditure and every facility of the passenger service, and that it should therefore be charged with its full pro rata of all costs. On this point the Bourne Committee says (Report, p. 14):

* * * "The main desiderata in mail transportation by railroads are frequency, regularity, speed and safety of the service; that the volume of passenger traffic determines and primarily controls the frequency, speed, and regularity, and to a great extent, the safety of railroad passenger transportation. Hence, everything that is necessary for or tends to increase the volume of passenger traffic must be a relatively corresponding benefit to the mail in its transportation over the railroads, and therefore the Government should pay its relative propor-

tion of same. That is to say, if the mail were 2 per cent. of all passenger business, then the mail should bear 2 per cent. of any cost incurred in the passenger business, or expended for increasing the volume of the passenger traffic."

The Bourne Committee, reiterating the substance of its opinion above, further says (Report, p. 97):

* * * "The mail service should yield the railroads a revenue per car-mile practically the same as that found to be a reasonable revenue for the passenger service per car-mile."

If it be admitted that all passenger costs should be distributed pro rata to the various branches of the passenger service, there is no escape from the conclusion that the rates charged should be so adjusted as to return from each branch a substantially equal revenue per car-mile.

TEST ON BASIS OF COST.

The Interstate Commerce Commission has not hitherto prescribed forms of accounting for segregating on a uniform basis the costs of the passenger service and its branches. The method of distributing overhead or common costs varies materially among the various railroads. Until a uniform method of costs-distribution has been in operation for a time, the actual cost of any service cannot be accurately ascertained. The present cost data should therefore be only tentatively accepted, and they are doubtless subject to more or less modification.

It is nevertheless pertinent to review certain cost-studies of mail-carriage, made by the Post Office Department and to show that they confirm the insufficiency of mail-carriage revenues, indicated by the revenue test. The reports made by the railroads to the Post Office Department for the month of November, 1909, exhibited in detail all charges made against the mail service for operating costs and taxes. The Department modified the railroad reports by excluding from the mail-carriage costs and transferring to passenger-carriage costs certain items which the Bourne Committee contends should be distributed pro rata to the several branches of the passenger service.

Despite these modifications, the cost figures thus collated by the Department, on a fallacious basis tending to produce less than the true cost, found the cost to the railroads of providing mail-carriage to be 18.49 cents per car-mile.

During the fiscal year (1909-1910) which included the month covered by the cost inquiry, operating costs and taxes consumed 69.83 per cent. of the gross earnings of the railroads, leaving available for capital charges, surplus, and all other purposes, 30.17 per cent. of the gross earnings. enable the mail service to contribute its due pro rata share to the gross earnings, the same ratio between its operating costs and its gross would be required: that is to say, an outlay of 18.49 cents per car-mile should produce gross revenue of 26.47 cents per car-mile. The Bourne Committee has shown. as detailed above, that the actual earnings per car-mile in that year were but 20.22 cents—a deficiency of over 25 per cent. below the rate required to sustain the general average of gross earnings. Even the computations of the Department, based upon the exclusion of dead space produce but 24.86 cents per car-mile as against the 26.47 cents required. If therefore the Department's own computations of cost and earnings be accepted, on its own showing the railroad earnings from mail service in 1909-1910 were materially deficient as compared with the average earnings from all branches of the service.

Moreover, it can be conclusively shown that since 1909 the cost of operation has materially increased; so that the margin between cost and earnings, which has been shown to have been in 1909 very small, has probably entirely disappeared.

But there are important exceptions to the contention of the Bourne Committee that all passenger service costs should be distributed pro rata. While it is true that all outlays for passenger service benefit the mail service, the converse is not true. There are material factors of cost which belong solely to the mail service, and have no relation whatever to other branches of the passenger service. These cost-factors, exclusive to mail carriage, comprise:

Special switching and "spotting" of mail cars;

Excess cost of mail cars;

Space for clerks in stations;

Transfer of mails from one railroad to another;

Carriage of mails to and from post-offices except in large cities;

Carriage of postal clerks and Department officials;

Apartment car space used for distributing mails, and not paid for.

All these are "extra" services for which no payment is made. They entail costs arising exclusively from the mail service. They confer no benefit whatever upon the other branches of the passenger service. If these cost-factors be segregated and charged against the mail service—as they should be—the cost of the latter would be raised above the general average cost of the passenger service as a whole, and a rate which would produce car-mile earnings in excess of the average would therefore be warranted.

The inquiry of November, 1909, showed the express carmile earnings to be 23.088 cents per car-mile. A further computation covering the entire fiscal year 1909-1910 indicated express earnings of 22.647 cents per car-mile (Report Bourne Committee, p. 91).

It thus appears that the mail-carriage is relatively the least productive factor of the passenger service, which as a whole, in the opinion of the Interstate Commerce Commission, does not yield a sufficient revenue. It is evident, therefore, that the mail carriage involves a loss, inasmuch as its earnings are not only materially below the deficient general average, but also materially below the rate required, as shown above, to meet the operating costs and capital charges of the passenger service, and afford even a small margin of profit.

III:—CAUSES OF DEFICIENCIES IN RAILROADS' REVENUES FROM MAIL CARRIAGE.

I T has been shown above that the revenues derived from mail carriage, when tested by car-mileage, are very materially less per car-mile than those derived from passenger carriage, and that the passenger service earnings as a whole are less than they should be.

The principal causes of the deficiency in mail earnings are

- (a) Non-payment by the Government for space in so-called "apartment" cars, used principally for assorting mail in transit.
- (b) Non-payment by the Government for so-called "side" and "transfer" service, which comprises the carriage of the mails between the railroads and certain

- classes of post-offices, and the carriage of the mails from a railroad station to another railroad station on another Line.
- (c) Quadrennial instead of annual weighings, under which system the railroads receive no pay for any increase in weight which may accrue during the four-year period following the date of weighing.
- (d) Gradual reduction in average rate resulting from the operation of the present graduated scale governing payment by weight.

Space in Apartment Cars: Apartment cars are cars used in part for mail-carriage in which space of extent designated by the Post Office Department is partitioned off and used exclusively for postal purposes. At the expense of the railroads they are provided with special fittings. They are otherwise of special design, and their weight and cost materially exceeds that of ordinary baggage cars. The main function of these cars is to provide facilities for assorting mail in transit, and from four-fifths to nine-tenths of the available space is used solely for that purpose. The remaining space is used for the storage of mails.

No payment is made for the space used, if less than 40 feet,—the number of 40-foot apartments being so small as to be negligible. The railroads are paid only for the weight carried, and receive nothing additional for space used solely for assorting. The postal clerks and other postal officials are transported without charge. A 60-foot postal car carries an average of less than 3 tons of mail. Its weight-capacity is 20 tons or more. Approximately the same ratios apply to apartments. Therefore only about 3/20ths of the space in the apartment cars is revenue-producing. According to Mr.

Lorenz's computations (Report Bourne Committee, p. 19) about 40 per cent. of the estimated mail car-mileage for 1915 is credited to apartment cars. As about 17/20ths of this mail-car mileage results from hauling space used solely for assorting mail, without payment, it follows that at a rough approximation, about one-third the car-mileage made in the mail service is non-revenue-producing to the railroads, by reason of non-payment for assorting-space in apartment cars.

For full postal cars in addition to payment for the small amount of weight carried therein, yearly payment of from \$25 to \$40, according to length of the car, is made for each mile of the route covered. If this scale of payment were applied to the 4,000 apartment cars, the revenues of the railroads would be increased by approximately \$4,000,000.

Side and Transfer Service: No payment is now made for these services. They are not a part of rail transportation, and there is no obvious reason why the railroads should be required to perform them without pay. The Department conceded that they should be paid for, and estimated the cost, for 1915, under separate contract, as \$2,118,820. The Bourne Committee thought this estimate excessive. It serves, however, to indicate approximately the value of the non-revenue-producing service which the railroads have hitherto supplied. Mr. Lorenz estimated the actual outlay by the railroads for this service at \$1,000,000.

Quadrennial Weighings: As the mails over any particular route are weighed but once in four years, and the weight then determined is the basis of payment for the succeeding four years, it is evident that any increase in weight during that period is carried without compensation. As the actual aggregate weight in any intervening year is never determined,

it is impossible to ascertain the difference between such actual weight and the weight paid for. Professor H. C. Adams in 1808, and the Post Office Department in 1913 estimated the mail ton-mileage, and from those estimates Mr. Lorenz (Hearings, Bourne Committee, p. 869) deduced the increase in weight as 41/2 per cent. each year. The ton-mileage estimates are of doubtful validity, as there are no fully ascertained weights upon which to base them. Upon this foundation, however, Mr. Lorenz concluded that if annual weighings were substituted for quadrennial weighings, the railroads would have received at that time an increase in compensation of \$3,225,000. This amount would, of course, increase annually thereafter, in proportion to the annual increase in weight. Mr. Lorenz's computation is based upon the normal annual increase prior to 1913, when the weight limit of parcels was restricted to 4 lbs, and the parcels post mail was relatively unimportant.

On Jan. 1, 1913, the new parcels post regulations went into effect, raising the weight limit to 11 lbs., and reducing the rates; the weight limit being subsequently again raised to 20 lbs. universally and to 50 lbs. in specified zones. These changes induced an enormous increase in the volume of mails, which increase completely invalidated the ratios used in Mr. Lorenz's computation above, as to all succeeding years.

An indication of the extent of this abnormal increase may be gathered by comparison of some of the weighings which preceded the parcels post with those which followed. The entire country is divided into four postal sections,—the mail in but one of which is weighed in any one year. Hence the increase can be shown only by separate sections:

Rate of Increase Before Rate of Increase After
Parcels Post Parcels Post

1911—3rd Sec. Inc. 11.72 per ct. 1913—1st Sec. 24.44 per ct.
1912—2nd Sec. "8.56" "1914—4th Sec. 17.56" "

It thus appears that the average rate of increase in the two sections weighed after the operation of parcels post was more than twice that of the two sections weighed prior to that operation.

The data upon which the foregoing computation rests are, however, in some respects uncertain. The so-called "divisor" order of 1907 changed all ratios prior to 1911, which made impracticable accurate comparison between years in that, and in the succeeding period. Moreover, in two sections, 2nd class mail (periodicals) was in part carried by freight instead of by passenger trains which caused further disturbance in the bases of comparison. As, however, the Government's postal revenues in the first year in which they were affected by the parcels post showed an increase more than twice that of the preceding year, which increase has been maintained, it is safe to conclude that the present loss due to quadrennial weighings is considerably more than twice that estimated by Mr. Lorenz, and may be roughly approximated at \$7,400,000.

Congress perceived the inequity of compelling the railroads to carry during 1913 and succeeding years a greatly increased volume of mails for the compensation fixed by weighings in the preceding four years when the weights ranged from 8 per cent. to 30 per cent. less. It therefore authorized the Postmaster General to make a temporary extra allowance, beginning 1913, of not more than 5 per cent. on part of the existing contracts, until readjustment by actual weighings in the several sections. This allowance amounted to \$1,686,000. as against the \$7,400,000 deficiency estimated above. however, it is only temporary, when it has ceased (in 1916) the full extent of the annual deficiency due to quadrennial weighings will again become operative. Deducting this temporary allowance, the present net underpayment would be somewhat more than \$5,700,000.

Summary of (a), (b), and (c): The proper mail-carriage revenues of the railroads are at present annually depleted:

By Non-Payment for Apartment Cars	\$4,000,000
By Non-Payment for Side-Service	2,000,000
By Quadrennial Weighing \$7,400,000	
Less Temporary Allowance 1,700,000	
	5,700,000

Total Estimated Underpayment......\$11,700,000

Operation of Graduated Scale: The graduated scale of payments for weight (see page 23) under which the rate paid decreases as the weight increases, tends constantly to decrease the aggregate payments to the railroads for mail-carriage. It results from a misapplication of the familiar principle that large units can be moved at a lesser ratio of cost than can small units, and that the former should therefore have a lesser rate.

The principle does not properly apply to the aggregation of small units shipped separately The graduated scale, however, so applies it, with the result that much of the mail service carried in small units pays much less than a fair rate.

While movement of freight in large units admits of material economies, and therefore of a lessened rate, the same is not true of mail-movement under the conditions imposed by the Post Office Department. On the contrary the effect of increased mail traffic is diametrically the opposite. Freight in bulk takes a low rate because it utilizes the maximum of car capacity and thereby increases the ratio of live or revenue-producing weight to that of dead or non-revenue-producing weight, and returns a maximum of revenue without increasing cost of movement.

An increase in mail traffic produces the contrary result; that is, it increases the ratio of the dead weight and decreases that of the live weight, and produces a minimum instead of a maximum revenue, by failure to load to capacity.

As mail traffic increases, the railroads are required to supply specially constructed apartment cars, of which designated portions are used for the mail service. No extra payment is made for apartments less than 40 feet long. The mail carried therein occupies but 10 to 20 per cent. of the space, the remainder being used solely for mail-distribution. Railway post office cars are used solely for mail purposes, distribution en route requiring most of the space. Additional payment is allowed for the use of apartments of over 40 feet,—of which there are relatively very few—and for railway post-office cars, but on a low basis relatively to the cost and the revenue-producing capacity of equal space in other service.

By reason of the fact that the space in both apartment and railway post-office cars is mainly used for sorting purposes, the proportion of revenue-producing weight carried (upon which weight most of the payment is based) is relatively small, averaging, according to the computations of the railroads, but 2.09 tons per 60 ft. R. P. O., a similar ratio for apartment cars, and 7 tons per mail storage car as against a capacity of 20 tons or more. Thus the conditions arising from the requirements of the Post Office result in a minimum revenue-producing use of the equipment.

Moreover, a disproportionate increase in operating costs arises from the same conditions. The special cars required for the mail service weigh approximately 30 per cent. more than the standard baggage car of equal length and cost from 40 to 50 per cent. more, as testified by Mr. Julius Kruttschnitt, of the Union and Southern Pacific Systems, at the Hearings

of the Bourne Committee. Thus the disproportion between live and dead weight is maximized, the number of postal cars required is increased by their deficient loading, the size and especially the weight of passenger trains is much increased, and the cost of hauling them correspondingly enhanced.

The frequency of mail-train service likewise has an important bearing upon the fairness of the graduated rates. The economies which warrant a low rate for quantity can only be effected when the quantity is cumulated and carried in unbroken bulk. If an equal quantity be broken into smaller units and carried at different times, no economy is possible and no concession in rate should be made. The effect of increasing the number of mail-trains upon a given route is to reduce the average weight of mail per train, and prevent the cumulation of mail into bulk-units which permit economies: and at the same time to enforce a low rate (only justifiable by maximum unbroken bulk), by aggregating the weight of separate small units conveyed at different times, under conditions which produce maximum instead of minimum cost of carriage.

The practice under the law of 1873 of aggregating the weight of a great number of small shipments and applying thereto a low rate based upon the principle of bulk shipments—which is derived from wholly different conditions—is an indefensible violation of the principles of sound graduated rate-making, developed by the Interstate Commerce Commission, applied by all railroads and enforced against all private shippers.

The effect of an increase in the mails is not a more intensive (and therefore more economical) use of existing facilities, but the provision of different and more costly facilities, less intensively used, producing relatively less revenue, and costing more for operation. Under these conditions the

operation of the graduated scale, which reduces the rate of compensation as the aggregated volume of mail increases, may become most unjust.

Nevertheless, if the railroads were relieved of the losses due to apartment space, quadrennial weighings, and side service, the average return under the graduated scale would probably be sufficiently remunerative, so that under present conditions the objections to it would be mainly theoretical. A material change in conditions, however, such as extension of the parcels post limit to 100 lbs., together with a reduction in rates of postage—as advocated by the Post Office Department—would not only further and seriously reduce the present average rate of return from mail traffic, but would cause the railroads heavy loss by diversion to the mails of much freight traffic which yields a much better return under freightrates than it would produce under mail-rates.

This phase of the subject is analyzed more fully in a following section.

IV:—PROPOSED READJUSTMENT OF RAILROAD MAIL PAY.

Position of the Bourne Committee.

THE Bourne Committee finds the present method of determining railway mail pay "antiquated, unscientific and unsatisfactory." It recommends the complete abandonment of the present combination weight-and-space basis, and the substitution of a solely-space basis. Separate compensation is to be made for

(a) Terminal service; fixed rates, for specified units of car-space for which such terminal service is performed.

(b) Line service; fixed rates per mile for specified units of space.

Standard units of space are fixed as follows:

Full Railway Post Office cars and storage cars, standard length of 60 feet;

Apartment Railway Post Offices, 30 feet or 15 feet standard length;

Closed Pouch Space, standard units, 7 linear feet or 3 linear feet.

The Bourne Committee finds that present mail earnings are insufficient, and concludes that rates should be experimentally raised sufficiently to yield a revenue per car-mile approximately equal to the average car-mile revenue derived from all passenger-train traffic during the preceding five years, namely, 25.3 cents. Some members of the Committee thought the mail revenue should be at least fully equal to the passenger revenue on a car-mile basis. Senator Bourne believed that the railroads should receive a higher car-mile revenue for mail transportation than for passenger service. The Committee's conclusion was:

"Under all the circumstances we believe that a 25-cent 60-foot car-mile mail revenue to the railroads would certainly be fair to the Government, though it might not be as liberal a payment to the railroads as the development of subsequent information and more reliable data resulting from the development of a better and more universal cost may demonstrate as warranted."

In effect, therefore, the Bourne Committee held that while a substantial advance is warranted, its members were not certain that the rate proposed is enough. The Bourne Bill therer fore provides for a future readjustment of rates by Congress, on the recommendation of the Interstate Commerce Commission. The rates now recommended by the Committee, intended to produce, on a space basis, a mail revenue approximately equal to that which would result from a rate of 25 cents per car-mile are as follows:

		Terminal Charge Line Charge				
		Round Trip Water Per M	Iile '			
60	ft.	R. P. O \$8.50 Walling 21	cts.			
60	ft.	Storage 8.50	cts.			
30	ft.	Apartment 5.50	cts.			
15	ft.	Apartment 4.00 4.00	cts.			
7	ft.	Pouch Space 1.00	cts.			
3	ft.	Pouch Space50	cts.			

The terminal charge for a single trip is one-half that for a round trip. All terminal charges are irrespective of the distance run. In addition to payments on the above basis, strictly for rail transportation, payment is to be made, on a competitive contract basis, for "side" and transfer service, hitherto performed by the railoads without compensation.

Position of the Post Office Department.

The Post Office Department has consistently contended during many years that the railroads are excessively overpaid for mail carriage. It has therefore sought to change the plan under which the amount of compensation is determined in such manner as materially to reduce the cost of mail transportation. It has, moreover, under the present administration, advocated the policy of inducing the movement by post of large volumes of commodities, through enlargement of the

weight limit, and by making very low rates for such new traffic.

Since 1911 the Department has advanced four plans, all but one of which—the Moon Bill—were speedily abandoned. During the Bourne Committee Hearings the attitude of the Department was intensely hostile, doubtless because of the expressed intention of the Bourne Committee to increase the compensation of the railroads, to which the Department was strongly opposed.

The Department even went so far as to anticipate the action of the Bourne Committee by introducing the conflicting Moon Bill. This Bill in its original form abandoned the plans previously advocated by the Department, and instead adopted in large part the plan of space payment evolved by the Bourne Committee, but with a scale of rates which that Committee denounced as confiscatory.

Ultimately, however, the rates proposed by the Moon Bill were increased so as nearly to conform to those of the Bourne Committee. So the Moon Bill became, as to the abolition of weight payments and adoption of the principal space units, practically identical with the Bourne Bill, but with slightly lower rates for storage cars, and materially lower terminal rates for apartment cars.

There were, however, vital points of difference in other respects. The rates proposed under the Bourne Bill could be changed only by Congress; under the Moon Bill they could be reduced at the discretion of the Postmaster General. Thus the rates named in the Moon Bill are merely the maximum rates which may be paid, the actual rates being wholly subject to the unrestricted authority of the Postmaster General, to whom is delegated the unrestricted power of rate-making hitherto exercised only by Congress. The Moon Bill also withholds compensation for "side" service.

Moreover, the Postmaster General is authorized to reduce mail payments on selected routes to the level of express rates when the latter are less than prevailing mail rates.

Thus we find the Post Office Department, intent upon reducing mail pay, adopting as a means to that end, the spaceplan and practically the rate-schedule prepared by the Bourne Committee for the purpose of increasing mail pay!

The Department's views as to the effect of the Bourne space-plan, were stated by Congressman Moon, December 14, 1914. While advocating in the House his Bill embodying that plan (the Bill having been prepared by the Post Office Department), he said:

* * * "You will have enough space under the contract to carry all your parcels post, probably without any additional compensation, and save many millions of dollars annually."

That language indicates that Congressman Moon and the Department had a much more definite perception of the ultimate effects of the Bourne space-plan, than had the Bourne Committee.

Those effects are outlined below.

The essence of the space-plan is that it requires large increase in service without permitting corresponding increase in compensation.

It derives a rate per car-mile from cars carrying light loads paid for by the pound, and then applies that rate, based upon light loads, to cars carrying heavy loads. Thus, as it pays on the basis of *cars*, and not on the basis of *contents*, and pays by the car at a rate derived from light weights, any increase in contents, within the limit of car capacity is carried without compensation.

The space-plan schedule measures the vehicle instead of measuring the service. The extent of the service may greatly

increase without any increase in the vehicle. The charge for the vehicle being fixed, no increase in compensation results from an increase in service performed by means of the vehicle. Such increase in service is therefore performed for nothing.

Space in this case is not a measure of service. To measure the space instead of measuring the contents, is like determining what one owes for eggs by measuring the basket instead of counting the eggs.

The average load carried by a mail storage-car is reported by the Post Office Department as a little over 7 tons (Hearings, Bourne Committee, p. 857). The capacity of storage cars is 20 to 25 tons. The space rates proposed by both the Bourne and the Moon Bills are derived from and based upon the revenues hitherto produced by the average 7-ton load, carried in a 20-ton car and paid for by weight. Under the space-plan of payment the average storage-car load can be increased nearly three-fold, without any increase in compensation.

By reason of its volume and character, the parcels post must necessarily, and in an increasing degree, be in large part carried in storage-cars, and the average load of the latter will rapidly and inevitably increase to the limit of capacity. A similar result will ensue as to closed-pouch space (and in a lesser degree in full postal and apartment cars), where increase in volume and weight up to maximum capacity will not entail additional cost.

It cannot be doubted that the Department would fully utilize the opportunity to reduce cost by loading storage cars to capacity.

That might be done:

(a) By cumulating upon one route, so as to provide full loads for the storage cars passing over that route,

the contents of partially loaded storage cars now passing over several routes.

(b) By holding parcels post mail until a full car-load be available.

The effect upon the revenues of the railroads of payment by space, irrespective of increase in weight, is shown by the following exhibit:

INCREASE IN REVENUE COMPARED WITH INCREASE IN SER-VICE UNDER SPACE-PLAN.

Application of space-plan to space actually	
used in fiscal year 1909-1910 at 25 cts. per	
car-mile (basis adopted by Bourne Com-	
mittee) would have produced to Railroads.	\$60,957,241
Application of space-plan to space required in	
1915 (as estimated by P. O. Dept.) would	
have produced to Railroads	64,595,585
Increase, amount of Revenue 1915 over 1910.	3,638,344
Increase, Per Cent. of Revenue, 1915 over	
1910	5.96 per cent.

Increase of Weight, 1915 over 1910:

The recorded increase of weight, as shown by payments to railroads is over 20 per The unrecorded increase, due to quadrennial weighings and great increase in parcels post matter not paid for, is at least 5 per cent., as shown by the increased postal revenue in 1913 and 1914. mated increase in weight 1915 over 1910,

It appears, therefore, that in a period of five years, during which the real service—namely, transportation of weight—performed by the railroads increased over 25 per cent., the compensation for such service under the space-plan would have increased by less than 6 per cent.

Under the space-plan the payments would assumedly absorb and abolish all the present inequalities due to non-payment for apartment-car space, side service and quadrennial weighings. The estimated outlays of the Department for mail transportation in 1915 (Bourne Committee Report, p. 19), including all the items specified above, would under the space-plan have been \$67,429,013. The actual payments to the railroads for weight in 1915, were \$59,443,416. It has been shown above that they should have been paid \$11,700,000 more, properly to adjust the deficiency arising from apartment cars, side service and quadrennial weighing. The proper payment for 1915 should therefore have been about \$71,143,000 or \$3,714,000 in excess of the payments resulting from the application of the space-plan in 1915.

Thus at its very inception the space-plan would *reduce* the proper present revenues of the railroads by about 6 per cent. The process of reduction would continue indefinitely into the future under the operation of concentration of loading, and the railroads would ultimately be worse off than under present methods and present basis of compensation.

V:—EFFECT OF SPACE-PLAN OF MAIL PAYMENTS UPON FREIGHT TRAFFIC AND REVENUES.

THE Bourne Committee concerned itself solely with the production of a plan of payment for mail-carriage, which should be scientific, and yield to the railroads adequate revenue.

It appears to have given no consideration to the potential effect of its space-plan rates upon freight traffic and freight revenues.

It has been shown above that the space-plan will prevent the railroads from receiving adequate mail-revenues, by preventing those revenues from increasing with the increase of traffic. Serious as would be that result, it is of minor importance in comparison with the destruction of existing freight revenues possible under the car-mile rate proposed for mail traffic.

The Bourne schedule is constructed to produce a car-mile rate of 25 cents per mile. In the case of a fully-loaded storage car of 20 tons capacity that is equivalent to 1½ cents per ton-mile. The average 1st Class freight rate to numerous typical points throughout the United States produces an average ton-mile rate of 2.948 cents. Shipments of less than 100 lbs. pay the full 100-lb. charge; and would therefore pay on the average at the rate of approximately 4½ cents per ton-mile.

The existing parcels post rates are already less than freight rates upon some commodities in certain localities. In consequence those commodities move, in limited areas, by post instead of by freight, and the railroads are thereby deprived of their freight revenue without compensating increase in their mail revenue. This tendency to substitution of mail-carriage for freight-carriage would be greatly enhanced by the space-plan. Under the car-mile rate proposed, the Department could without loss carry by mail parcels of 100 lbs. or less at the rate of 1½ cents per ton-mile, or one-third the rate which such parcels would pay if shipped as 1st Class freight.

No one with any practical knowledge of traffic conditions can have any doubt as to what will happen when merchandise

may be transported on passenger trains at one-third the cost of shipment by freight trains. That change would inevitably transmute an enormous volume of freight traffic into mail traffic at a much lower rate of charge, with a corresponding loss of net revenue to the railroads. Stated otherwise it would be equivalent to an enforced cut of two-thirds in the present 1st Class freight rates in the case of all merchandise that could be shipped in packages of 100 lbs. or less.

The transportation of express shipments requires the movement on passenger-train schedule of solid express-car trains, loaded to capacity. A similar condition would inevitably follow the adoption of a postal rate, based on the space-plan, and intended to promote the commercial use of the parcels post. In that event the railroads would be running, for the Post Office Department, fast freight trains on passenger schedules, with a return of 1½ cents per ton-mile—one-third the return per ton-mile which the same freight would yield if carried in ordinary freight trains operated at a fraction of the cost of passenger train operation.

Aside from its effect on freight revenues the conversion of a large volume of freight traffic into passenger traffic would have a serious and very harmful effect upon the operating conditions of passenger trains. The public demand for high passenger speed is imperative. To comply with it requires a minimum of delay at stations, restriction of train weight and a maximum outlay for motive power. Increased delay at stations requires increased speed between stations. As speed increases, the cost of power increases in a rapidly progressive ratio. Additional weight likewise progressively increases the ratio of speed-cost. The use of the parcels post for commercial transportation will inevitably increase the length and weight of passenger trains and cause increased delay at stations while loading and unloading. Hence an

increase in required speed between stations, made necessary to maintain fast schedules, and a material increase in the operating-cost of passenger trains.

As the Post Office Department has repeatedly contended that the economic principles which govern all business operations should not apply to service rendered to the Government by railroads, it may safely be predicted that if the Moon Bill becomes law, equity and economic effects upon the railroads will not be considerations in the making of rates for mail carriage.

In view of the oft-declared policy of the Postmaster General to foster the movement of commodities by post, by raising the weight limit to 100 lbs., and decreasing the rates, it can scarcely be doubted that he would avail himself of the tempting opportunity offered by the Bourne space-rate schedule and the arbitrary power of reducing rates at his discretion, conferred by the Moon Bill.

VI:-FINAL CONSIDERATIONS.

The Bourne Rate Unduly Low: The objections to the principle of the space-plan of payment have been developed above. There is a further objection to the rate proposed for the practical application of that plan, namely, 25 cents per car-mile. That rate was derived from the general average of all passenger earnings. The Interstate Commerce Commission has since shown that the entire range of railroad earnings is too low, and that the passenger earnings as a whole are particularly defective. That is equivalent to saying that the average earnings of the passenger service as a whole should be materially increased. To enable the passenger service as a whole to contribute its due pro rata to the aggregate gross

earnings the average car-mile earnings of the entire passenger service would require to be advanced to at least 27 cents per car-mile. The rate basis adopted by the Bourne Committee should therefore have been at least 27 cents instead of 25 cents per car-mile.

Economic Disturbance Resulting from Unduly Low Postal Rates for Merchandise: Until recently the Post Office was primarily an instrument of social service, employed mainly for the dissemination of intelligence. The rates paid by it for mail-carriage were of very little economic importance and produced almost no economic effect. These conditions are already materially, and may soon be radically changed. The Post Office Department is now entering actively into the field of commercial transportation. Its operations in that field have potency profoundly to disturb existing methods of transportation and to disrupt existing freight rates.

The principle under which it proposes to determine its payments to the railroads, and by consequence its charges to the public, is violently in antagonism with the principle upon which freight rates rest, namely, the principle of classification, and gradation of charges with reference to the nature and variance in value of the commodities transported. Under this principle valuable commodities pay a higher rate than is paid by commodities of small value. If rates were uniform and based strictly upon cost of movement, low grade freight would pay per ton, as much as paid by silks. Under this condition the selling price of many coarse commodities would be doubled, grain would cost very much more than at present, and our surplus grain could not reach foreign markets because of the excessive cost of transportation. Moreover, a wide range of commodities would not move at all, and the traffic of the railroads would be enormously reduced. The whole structure

of railroad freight rates, therefore, rests upon gradation, the rates being apportioned with reference, among other factors, to the value of the service, that value varying with the character of the commodity.

It is not practicable here fully to discuss and demonstrate the soundness of the principle from which proceeds graded freight rates based upon value of service, as opposed to uniform rates based solely upon cost. It is sufficient here to say that that principle is almost universally accepted by economists as beneficient and indispensable; and that the application of the opposing principle of uniform rates based solely upon cost would wither alike the industries and the transportation interests of the country.

It follows therefore that the principle of graded rates, as applied in the existing freight structure, should be maintained, and that high-class commodities should continue, as at present, to pay rates based upon the value of service.

This, however, cannot be the case, if the Post Office enters into active competition for the transportation of merchandise. Having no low-grade traffic with low rates requiring to be counterbalanced by compensating high rates on high-grade traffic, in making rates for the latter it need consider only cost of movement, which as previously shown, will, under the space-plan, be only one-third present freight rates.

So long as parcels post traffic is restricted to small units of weight at present rates it cannot seriously affect the freight rate. A very great impairment of freight traffic and revenues would, however, immediately follow an increase of weight limit to 100 lbs., with rates based upon cost of movement, as indicated by the Postmaster General's frequently declared ambition to induce the movement of commodities by post.

No tenable reason can be shown why the Post Office Department should undertake commercial transportation. It can

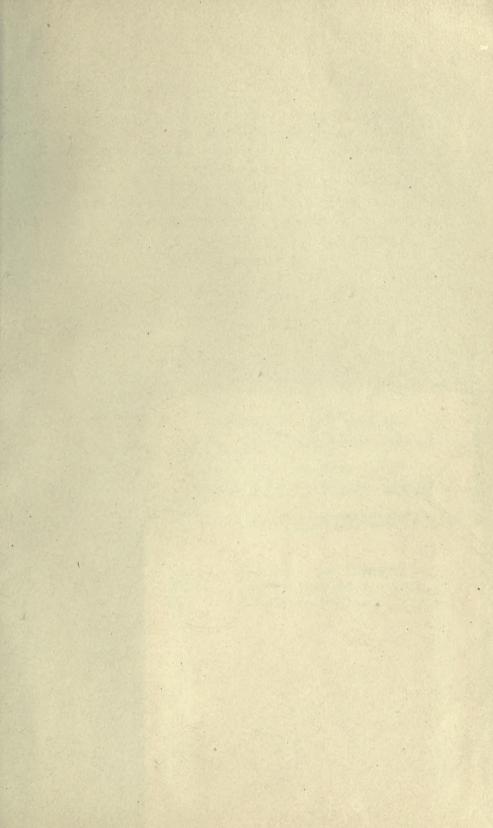
only succeed in that undertaking by cutting freight rates, thereby further reducing the already insufficient revenues of the railroads. In any event, it should be precluded from making rates lower than 1st Class freight rates, with a considerable additional charge for the extra speed of passenger train service, and thereby be required to conform, as to commercial traffic, to the established principle of rates based upon value of service.

Respectfully submitted,

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Director of Research,

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